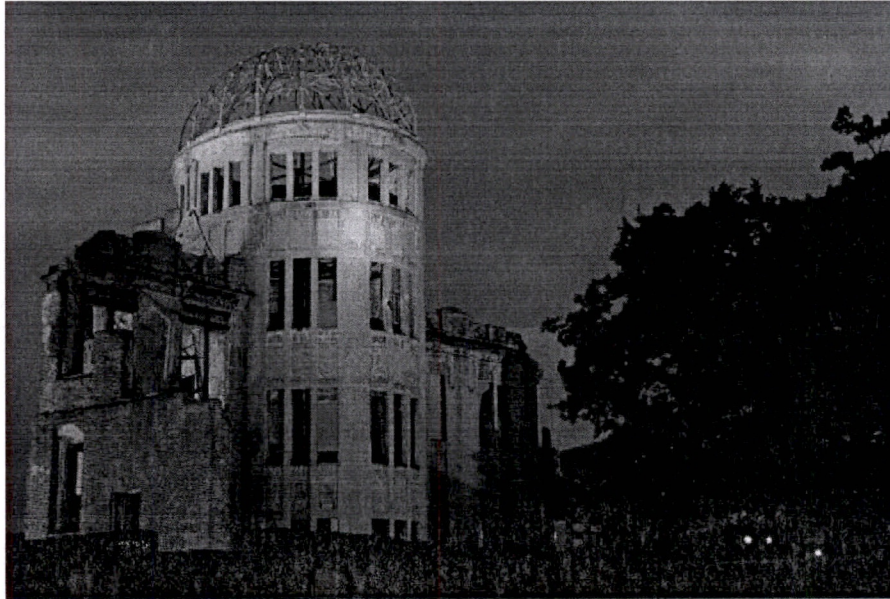


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## Sixty-Nine Years After Hiroshima, Time for Renewed Action for Nuclear Disarmament and Human Survival

Posted on August 4, 2014 by Daryl G. Kimball



A-Bomb Dome is seen near Hiroshima Peace Memorial Park on August 5, 2010 in Hiroshima, Japan,. (Photo by Kiyoshi Ota/Getty Images)

*By Daryl G. Kimball*

Since the devastating U.S. atomic bombings of Hiroshima and Nagasaki 69 years ago this week, the catastrophic effects of nuclear weapons have motivated ordinary citizens to push their leaders to pursue arms control and disarmament measures to reduce the threat of nuclear weapons use.

For decades, it has been well understood that the direct effects of a large-scale nuclear conflict could result in several hundred million human fatalities, while the indirect effects would be far greater, leading to the loss of billions of lives.

✓ An April 1979 U.S. Arms Control and Disarmament Agency report found that an exchange of U.S. and Soviet nuclear forces involving a total of approximately 18,000 strategic warheads would kill 25-100 million people in both the U.S. and the Soviet Union. Under the scenario examined, the population centers would not be targeted but would be within the range of effects of the weapons targeted against military and industrial targets. As a result, the 200 largest cities in each country would be destroyed and 80 percent of all cities with 25,000 people or more would be attacked by at least one nuclear weapon.

Since the end of the Cold War—and with strong public pressure for the conclusion of effective U.S.-Russian nuclear risk reduction and disarmament measures—the threat of a U.S.-Russian conflict has decreased, but the risk of a nuclear war remains.

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In 2001, the United States and Russia formally adopted a policy of cooperation against common threats. On Nov. 13, 2001, U.S. President George W. Bush and Russian President Vladimir Putin declared, "[t]he United States and Russia have overcome the legacy of the Cold War. Neither country regards the other as an enemy or threat." ✓

Unfortunately, the United States and Russia are not exactly friends and their nuclear arsenals and strategy are still sized and oriented to engage in a protracted nuclear exchange that would devastate the other, many times over. ✓

Clearly, current U.S. and Russian nuclear arsenals far exceed what is necessary to deter a nuclear attack from being launched in the first place. Today, the U.S. and Russian strategic and tactical nuclear weapons stockpiles (not including warheads awaiting dismantlement) each exceed 5,000 nuclear bombs, any one of which could devastate Washington or Moscow. ✓

As of March 1, 2014, the United States deployed 1,585 strategic nuclear warheads on 778 strategic bombers, land-based missiles, and submarine-based missiles, while Russia deployed 1,512 strategic warheads on 498 strategic delivery vehicles. Under the 2010 New Strategic Arms Reduction Treaty (New START), by the year 2018, each country is allowed to deploy no more than 1,550 strategic nuclear weapons on 700 missiles and bombers. ✓

While further U.S.-Russian nuclear reductions are clearly in order, President Putin rebuffed President Obama's June 2013 proposal to slash U.S. and Russian strategic nuclear stockpiles by another one-third below New START ceilings—to nearly 1,000 deployed strategic warheads. 16

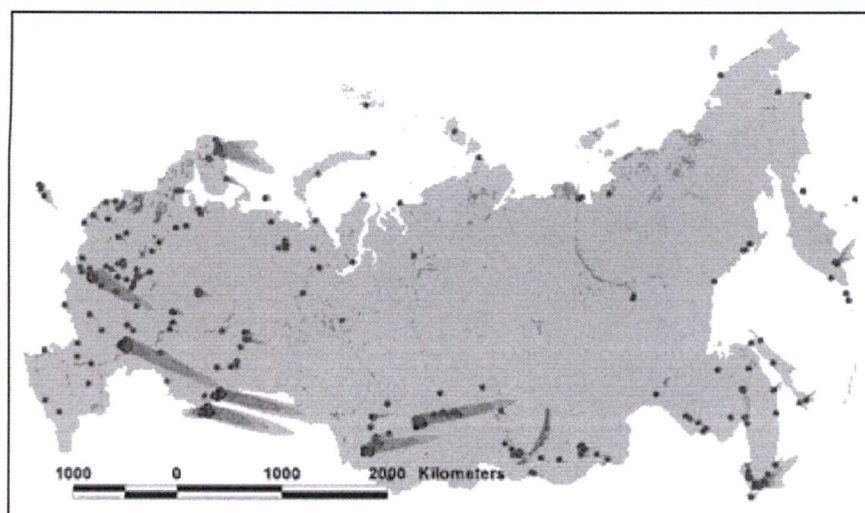
On Dec. 25, Mikhail Ulyanov, director of the Russian Foreign Ministry's security and disarmament department said, "[n]ow is the most inauspicious moment in the past 10-15 years to talk about further reductions."

*No - make point that cannot conflicts do next opposite cannot occurs.*  
Actually, the United States and Russia need effective nuclear risk reduction measures now, more than ever.

While U.S. and Russian nuclear forces remain primed for prompt launch, renewed tensions between the two nuclear superpowers over Russia's ongoing meddling in Ukraine raises the specter of a military conflict that could escalate into a catastrophic nuclear confrontation. Just one U.S. nuclear-armed submarine—loaded with 24 missiles, each armed with four 455-kiloton warheads—could kill millions. ? *roughly 1/2 way.* 24  
4  
96

A 2001 report by the Natural Resources Defense Council (NRDC) details the effects of a "precision" nuclear attack on nuclear forces in Russia. NRDC's nuclear war simulation demonstrates that 8 to 12 million people would die in a U.S. attack on Russia's nuclear forces, and more would die if other targets were included, such as military and political leadership and war-supporting infrastructure.





This map shows how radioactive fallout would spread across the Russian landmass, creating lethal conditions over an area exceeding 300,000 square miles—larger in size than France and the United Kingdom. NRDC's nuclear war simulation demonstrates that between 8 and 12 million people would die in a U.S. attack on Russia's nuclear forces; more would die if other targets, including military and leadership; war-supporting infrastructure were also included in the nuclear strike. (Source: "The U.S. War Plan: A Time for Change," June 2001.)

In other regions of the world, the number of nuclear weapons has slowly increased and the threat of nuclear annihilation has grown.

**China** has an estimated 240-300 nuclear weapons, no more than 50 of which are on intercontinental-range ballistic missiles. **France** has fewer than 300 operational nuclear warheads. The **United Kingdom** has fewer than 160 deployed strategic warheads and a total stockpile of up to 225 nuclear warheads. **India** is estimated to have about 100 nuclear warheads and **Pakistan** is estimated to have as many as 90 nuclear warheads. **Israel**, which has not officially acknowledged its nuclear arsenal, is believed to have between 75 to 200 nuclear warheads. **North Korea's** arsenal is limited in size (it has enough fissile material for about 10 bombs) and range.

Recent studies find that a nuclear exchange between India and Pakistan involving 100 detonations of 15-kiloton bombs would kill 20 million people in the first week and reduce global temperatures by 1.3 degrees Celsius, thereby putting another 1 to 2 billion people at risk for famine. (for how long?)

Clearly, the use of nuclear weapons would result in humanitarian emergencies far beyond the immediate target zones of the warring parties and would violate the basic principles of international humanitarian law, including avoidance of attacks that could affect civilians indiscriminately.

Nevertheless, the world's nine nuclear-armed nations still threaten to use their massive nuclear arsenals in the name of deterrence, and as Hans Kristensen writes in the May issue of *Arms Control Today*, "...all of the world's nuclear weapons states are busy modernizing their arsenals, continue to reaffirm the importance of such weapons, and none of them appear willing to eliminate their nuclear weapons in the foreseeable future."

The United States alone is scheduled to spend in excess of \$355 billion over the next decade on maintaining, replacing, and upgrading its nuclear warheads and delivery systems.

### What Is to Be Done?

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Frustration and concern about the situation is growing. As Ambassador Desra Percaya, Indonesia's Representative to the United Nations, said in a speech in Washington D.C. in March, "...the world cannot wait endlessly for nuclear weapons' elimination. The risks are obvious. For a nuclear detonation, deliberate or accidental, its effects will be horrendous on people and all living things – we will all suffer. We must act now."

At the urging of non-nuclear weapons states, the 2010 Nuclear Nonproliferation Treaty (NPT) Review Conference final document expressed "deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons and the need for all States...to comply with applicable international law, including international humanitarian law."

The NPT nuclear-weapon states committed to "diminish the role and significance of nuclear weapons" and "[d]iscuss policies that could prevent the use of nuclear weapons." In keeping with the NPT document's action plan, Norway hosted a conference in March 2013 in Oslo on the humanitarian consequences of nuclear weapons use. Mexico hosted a follow-up conference in February in Nayarit.

✓ In April, 80 countries issued a statement declaring that "[i]t is in the interest of the very survival of humanity that nuclear weapons are never used again, under any circumstances." In October, 125 states endorsed a similar statement.

Unfortunately, the five NPT nuclear-weapon states boycotted the Oslo and Nayarit conference, and several have criticized the April statement as a "distraction." The arrogant and hostile response, particularly from France and Russia, has only deepened the frustration of the non-nuclear-weapon states.

Rather than dismiss the next conference scheduled for December 6-7 in Vienna, the nuclear-weapon states should participate in and support future statements warning of the consequences of nuclear weapons use. They should accelerate their moribund efforts for nuclear risk reduction and disarmament seven decades after Hiroshima and Nagasaki.

Leading non-nuclear-weapon states must also come together around more effective proposals that challenge dangerous nuclear doctrines.

While there are few quick solutions to stubborn nuclear disarmament and nonproliferation challenges, present circumstances demand that serious international leaders consider new approaches to reduce and eliminate nuclear dangers. The following are some ideas that could be pursued beginning this year and ahead of the pivotal 2015 NPT Review Conference.

### 1. Engage the P5 In a Discussion on the Impacts of Their Nuclear Weapons Use Plans

✗ Before the 2015 NPT Review Conference, the nuclear-weapon states should be called upon to explain the effects of their nuclear weapon doctrines and war plans, if they were to be carried out, and explain how the use of such weapons would be consistent with international human rights and humanitarian law.

! { The June 2013 Report on the Nuclear Weapons Employment Strategy of the United States claims that "[t]he new guidance makes clear that all plans must also be consistent with the fundamental principles of the Law of Armed Conflict. Accordingly, plans will, for example, apply the principles of distinction and proportionality and seek to minimize collateral damage to civilian populations and civilian objects. The United States will not intentionally Follow



target civilian populations or civilian objects.”

The NPT nuclear-weapon states should, as part of their reporting responsibilities for the 2015 NPT Review Conference, report in detail on their nuclear weapons use policies so that states parties can evaluate whether such practices are consistent with international humanitarian law.

Particularly, if the five permanent members of the Security Council do not participate in the Vienna Conference on the Humanitarian Impacts of Nuclear Weapons, the United States and other nuclear-armed states should be called upon to explain the legal rationale and practical effects on their nuclear-weapon plans at the 2015 NPT Conference.

*with what urgency? sanctions for non-compliance?*

The discussion would, in the very least, highlight the importance of reducing the role and number of nuclear weapons, reinforce the norm against their use, and stimulate new thinking within the nuclear weapons states on the need to revise their nuclear-weapon plans.

## 2. Explore a Ban on the Use of Nuclear Weapons

*2nd? Threat?*

*Prior to deal.?!?*

*"NFW? We've gone over this before - we rejected it." (at the time)*

One implication of the catastrophic, global effects of even a relatively small number of nuclear weapons detonations is that nuclear weapons should never be used. As U.S. President Ronald Reagan once said, “a nuclear war cannot be won and must not be fought.”

One very logical way for responsible states to address the NPT Action Plan goals of diminishing the role and significance of nuclear weapons in military and security doctrines and assuring non-nuclear-weapon states against the use or threat of use of nuclear weapons, would be to explore options for a legally-binding instrument banning the use of nuclear weapons for any purpose.

*(NFW...? Sign I det?)*

*US announce FU, FS*

This was the approach taken with respect to chemical weapons in 1925 when states agreed in the Geneva Protocols that their use “has been justly condemned by the general opinion of the civilized world” and that “this prohibition shall be universally accepted ... binding alike the conscience and the practice of nations.”

The negotiation of such a ban on the use of nuclear weapons could take place in a dedicated diplomatic forum, possibly to be established by the UN General Assembly in 2015, beginning with the convening of a group of governmental experts.

Even if the nuclear-weapon states do not initially join in the negotiation or sign the instrument, the process itself and the final product would in the very least help to delegitimize nuclear weapons, promote a robust, serious debate on the nuclear use doctrines of the nuclear-weapon states, strengthen the legal and political barriers against their use, and help create the conditions for the elimination of all nuclear weapons.

Such an approach would, in my view, have a greater chance of winning broad, international support than a treaty banning the possession of nuclear weapons. For many years, India has, in fact, supported a convention on the prohibition of the use or threat to use nuclear weapons under any circumstances.

*possession is threat!*

## 3. Steps to Accelerate Progress on Nuclear Disarmament.

With the progress toward most of the key steps outlined in the 2010 disarmament action plan at a near standstill,

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it is also essential that the nuclear-armed states consider, and the non-nuclear-weapon states push for, actions that can jumpstart the process. Such steps might include:

*1000, too!* **Accelerate Pace of New START Reductions:** Even after New START, U.S. and Russian stockpiles will still far exceed any plausible deterrence requirements and the use of just a few nuclear weapons by any country would have catastrophic global consequences.

As a 2012 report by the U.S. Secretary of State's International Security Advisory Board suggests, with New START verification tools in place, further nuclear reductions need not wait for a formal follow-on treaty. President Obama, the report suggests, could announce he will accelerate the pace of reductions under New START to meet the treaty ceilings ahead of the 2018 implementation deadline.

So long as Russia takes reciprocal steps, President Obama could announce or simply act to reduce U.S. force levels below the treaty's ceiling of 1,550 deployed warheads and 700 deployed strategic delivery vehicles. A reasonable target would be for both side to reduce their stockpiles to 1,000 deployed strategic warheads and 500 strategic delivery vehicles each.

Such an initiative could induce Moscow to build down rather than build up to U.S. strategic force levels, which currently exceed Russia's by more than 275 deployed strategic launchers, and could allow both sides to trim the high cost of planned strategic force modernization.

*BAH* **Adjust Nuclear Readiness Posture of Some ICBMs:** As a confidence-building measure, U.S. and Russian experts could commence technical discussions on verifiably reducing the alert status of an agreed portion of their respective stockpiles, beginning with a portion of their land-based intercontinental ballistic missile (ICBM) forces.

*well?* In 2008, president-elect Obama said, "[k]eeping <sup>ANY</sup> nuclear weapons ready to launch on a moment's notice is a dangerous relic of the Cold War. Such policies increase the risk of catastrophic accidents or miscalculation. I believe that we must address this dangerous situation—something that President Bush promised to do when he campaigned for president back in 2000, but did not do once in office. I will work with Russia to end such outdated Cold War policies in a mutual and verifiable way."

*Europe (cap)* **Capping the Arsenals of the Other Nuclear-Armed States:** Nuclear disarmament is a global enterprise that requires leadership from all states, including China, France, and the United Kingdom, as well as states outside the NPT, specifically India and Pakistan, which continue to expand their fissile stocks and weapons holdings.

A realistic and pragmatic contribution to global nuclear disarmament would be for all other nuclear-armed states to exercise restraint by not increasing the overall size of their nuclear weapons stockpiles or increasing the size of their fissile material stockpiles, so long as the United States and Russia continue to make further progress in reducing all types of their nuclear weapons.

At their eighth ministerial meeting in Hiroshima on April 12, the foreign ministers of the ten-nation Nuclear Nonproliferation and Disarmament Initiative called on "those not yet engaged in nuclear disarmament efforts to reduce arsenals with the objective of their total elimination."

**Ban Certain Nuclear Delivery Systems:** In 2007 the United States and Russia together called for the Follow



globalization of the Intermediate Nuclear Forces (INF) Treaty, which bans ballistic and ground-launched cruise missiles with ranges between 500 and 5,500 kilometers, in part to curb missile buildups by China, India, Pakistan, and others. Today, the United States and Russia could renew and expand the concept by seeking a global phaseout of all nuclear-armed cruise missiles.

The United States no longer has nuclear-armed ground- or sea-launched cruise missiles and does not need new cruise missiles to maintain the bomber leg of the nuclear triad. This would allow both states to forgo expensive modernization programs for nuclear-armed cruise missiles and help to head off dangerous nuclear escalation elsewhere around the globe.

**Missile Defense Restraint and Cooperation:** Despite the cancellation of phase IV of the European Phased Adaptive Approach in 2013, U.S. missile defense plans continue to complicate the nuclear arms reduction enterprise. The United States and Russia should resume and intensify U.S.-Russian talks to achieve verifiable measures to make missile defense capabilities more transparent, consider exchanges of data on technical parameters, and conduct regular joint exercises. They should also explore options for a joint center for the surveillance and monitoring of missile threats and space objects.

**Redouble Efforts In Support of the CTBT:** Despite statements of support for ratification of the Comprehensive Nuclear Test Ban Treaty (CTBT) by President Obama and senior administration officials, the path to approval by the Senate remains challenging due to a lack of political will and partisan divisions in Washington.

Ratification is only possible if President Obama decides to direct his administration to organize a "New START-like" ratification campaign with efforts peaking in 2015. So far, he has not done so. Undersecretary of State for Arms Control and International Security Rose Gottemoeller has recently pledged to step up public outreach in support of the treaty. The Obama administration and CTBT supporters need to actively

- underscore the value of the CTBT in heading off proliferation in the Middle East, South Asia, and Northeast Asia;
- bolster CTBT outreach efforts and demonstrate the broad public and opinion-leader support that exists for the CTBT; and
- encourage Senators to agree to "reconsider" the CTBT in light of new information about the treaty.

Other states can also take leadership on the CTBT, advance its entry into force, and bolster the nuclear nonproliferation regime. Specifically, ratification by Israel, Egypt and Iran would reduce nuclear weapons-related security concerns in the region. It would also help create the conditions necessary for the realization of a Middle East Zone free of Nuclear and other Weapons of Mass Destruction.

According to a report in *The Times of Israel*, following a mid-March visit to Israel by CTBTO Executive Secretary Lassina Zerbo, Israeli Prime Minister Benjamin Netanyahu made clear that he considers the NPT to be of no use in the Middle East, the sources said, but by contrast Israel considers the CTBT to be "very significant," is "proud" to have signed it, and "has never had a problem with the CTBT."

Iran was at one time an active participant in the CTBT negotiations and on Sept. 24, 1996, Iran signed the treaty. Today, Iranian ratification and transmittal of data from international monitoring stations on its territory to the International Data Center in Vienna would help reduce concerns that its nuclear program could be used to develop and deploy deliverable nuclear warheads.

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## The Bottom Line

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As President Obama said last year, “[s]o long as nuclear weapons exist, we are not truly safe. Complacency is not in the character of great nations.”

In the coming months and years, creative, bold approaches will be needed to overcome old and new obstacles to the long-running effort to reduce nuclear dangers.

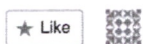
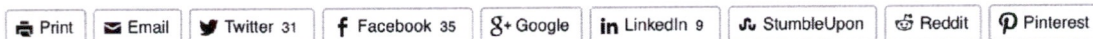
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President Obama said in September 2013 when the Syrian government launched a massive Sarin gas attack on its own people outside Damascus, “[t]he use of chemical weapons anywhere in the world is an affront to human dignity and a threat to the security of people everywhere.” That certainly holds true for nuclear weapons as well.

It is vital that global leaders welcome and pursue new, creative approaches to disarmament in order to guard against nuclear catastrophe.

*\*This essay is an updated and expanded version of an editorial published in Arms Control Today earlier this year.*

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